[54] **ELECTRONIC LEARNING AID OR GAME HAVING SYNTHESIZED SPEECH**

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Related U.S. Application Data

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[58] **Field of Search** .... 179/1 SM, 1 SG; 434/201, 167; 340/152 R; 273/237; 364/710

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[57] **ABSTRACT**

An electronic talking learning aid is disclosed. The learning aid includes a speech synthesis circuit which, in the embodiment disclosed, includes a digital lattice filter circuit, a voiced/unvoiced speech excitation circuit, a speech parameter interpolator, an input parameter decoder, a digital-to-analog converter circuit and associated timing circuits. The learing aid is also provided with a controller and at least one memory for storing digitized speech parameters as well as other digital data. This other digital data may represent, for instance, correct answers to questions posed by the talking learning aid. A keyboard or other response insertion device is provided to permit an operator to input his or her answers to the questions posed by the learning aid. In the disclosed embodiment, the talking learning aid asks the operator to input the correct spelling of a spoken word and informs the operator whether or not the response was correct.

77 Claims, 54 Drawing Figures